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# ANNUAL REPORT

OF THE

# Medical Officer of Health

AND

# Senior Sanitary Inspector

1938

Billingham Urban District Council

# ANNUAL REPORT

OF THE

# Medical Officer of Health

AND

# Senior Sanitary Inspector

1938

Middlesbrough

Dick Brothers Limited—35567

# Public Health Officers of the Authority

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**T. J. KIRK, M.B., Ch.B.,**
**Medical Officer of Health (Part Time).**

**A. H. RUSHWORTH,**
**Senior Sanitary Inspector (Whole Time).**
Sanitary Inspector's Certificate of R.S.I.
Meat and Other Foods Certificate of R.S.I.

**H. DURKIN,**
**Additional Sanitary Inspector (Whole Time).**
Sanitary Inspector's Certificate of R.S.I.
Sanitary Science Certificate of R.S.I.

**Clerks**—Three.

# BILLINGHAM URBAN DISTRICT COUNCIL.

## ANNUAL REPORT OF MEDICAL OFFICER OF HEALTH for the year 1938.

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GENTLEMEN,

I have the honour to present my Annual Report on the Health and Vital Statistics for your area for the year 1938.

### General Statistics.

| | |
|---|---|
| Area (Acres) | 7,860 |
| Population (1931 Census) | 17,972 |
| Population (1938 Resident) | 20,830 |
| Number of inhabited houses | 5,524 |
| Rateable value—30th September | £202,446 |
| Sum represented by a Penny Rate | £795 |

### Vital Statistics.

The following are extracts from vital statistics :—

| | Males | Females | Total | Birth Rate. |
|---|---|---|---|---|
| Births—Legitimate | 173 | 201 | 374 | 18.3 per |
| Births—Illegitimate | 5 | 3 | 8 | 1,000 of |
| Still Births—Legitimate | 10 | 6 | 16 | population |
| Still Births—Illegitimate | — | — | — | |
| | 188 | 210 | 398 | |
| | | | | Death Rate. |
| Deaths—Rate calculated on estimated population 20,830 | 93 | 73 | 166 | 7.9 per<br>1,000 of<br>population |
| INFANTILE DEATHS : | | | | |
| Legitimate | 8 | 6 | 14 | Infantile |
| Illegitimate | 2 | 2 | 4 | Death Rate |
| | | | | 47 per |
| | 10 | 8 | 18 | 1,000 |
| | | | | population |

Number of women dying in or in consequence of child birth.

| | |
|---|---|
| From Sepsis | Nil. |
| From other causes | 2 |

| | |
|---|---|
| Deaths from Measles (all ages) | 4 |
| ,, ,, Whooping Cough | Nil. |
| ,, ,, Diarrhoea (under 2 years) | Nil. |

| CAUSES OF DEATH | Male | Female |
|---|---|---|
| Measles | 3 | 1 |
| Scarlet Fever | 1 | — |
| Diphtheria | 2 | 1 |
| Influenza | 1 | — |
| Phthisis Pulmonalis | 2 | 3 |
| Other Tuberculosus Diseases | 2 | — |
| Syphilis | — | 1 |
| General Paralysis of Insane | — | 2 |
| Cancer | 13 | 14 |
| Diabetes | 1 | — |
| Cerebral Haemorrhage | 4 | 5 |
| Heart Diseases | 17 | 12 |
| Other Circulatory Diseases | 8 | 2 |
| Bronchitis | 2 | 2 |
| Pneumonia (all forms) | 10 | 4 |
| Other respiratory Diseases | 1 | 1 |
| Peptic Ulcer | 1 | — |
| Appendicitis | — | 1 |
| Other digestive diseases | 3 | 3 |
| Nephritis (Acute and Chronic) | 1 | 1 |
| Other Puerperal Diseases | — | 2 |
| Congenital Debility and Premature Birth | 6 | 5 |
| Senility | 3 | 2 |
| Suicide | 1 | — |
| Other deaths from violence | 7 | 4 |
| Other defined diseases | 4 | 7 |
|  | 93 | 73 |
| Total | 166 |  |

## AGES AT DEATH.

| Under 1 year | 1 to 2 years | 2 to 5 ,, | 5 to 15 ,, | 15 to 25 ,, | 25 to 45 ,, | 45 to 65 ,, | 65 to 70 ,, | 70 years and over |
|---|---|---|---|---|---|---|---|---|
| 17 | 3 | 4 | 4 | 7 | 36 | 53 | 8 | 34 |

Total 166.

The above table includes persons who died outside the district, but belonging to it.

## NOTIFIABLE DISEASES DURING THE YEAR.

| DISEASE | Cases Notified | Cases removed to Hospital | Deaths |
|---|---|---|---|
| Scarlet Fever ... ... ... | 168 | 166 | 1 |
| Diphtheria ... ... ... | 102 | 102 | 3 |
| Pneumonia ... ... ... | 26 | — | 14 |
| Puerperal Pyrexia ... ... | 3 | — | — |
| Erysipelas ... ... ... | 21 | — | — |
| Ophthalmia Neonatorum ... | 1 | — | — |
| Acute Poliomyelitis ... ... | 1 | — | — |
| Cerebro-Spinal Fever ... | 1 | 1 | — |
| Totals ... | 323 | 269 | 18 |

## AGE PERIODS OF ATTACK.

| Disease | Under 1 year | 1 to 2 years | 2 to 3 ,, | 3 to 4 ,, | 4 to 5 ,, | 5 to 10 ,, | 10 to 15 ,, | 15 to 20 ,, | 20 to 35 ,, | 35 to 45 ,, | 45 to 65 ,, and over | Totals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Scarlet Fever ... | 2 | 2 | 10 | 15 | 18 | 71 | 35 | 8 | 3 | 4 | — | 163 |
| Diphtheria ... | — | 1 | 4 | 2 | 7 | 49 | 27 | 6 | 5 | — | 1 | 102 |
| Pneumonia ... | — | 2 | — | — | 2 | 6 | 1 | — | 3 | 5 | 7 | 26 |
| Puerperal Pyrexia | — | — | — | — | — | — | — | — | 3 | — | — | 3 |
| Erysipelas ... | 1 | — | — | — | — | — | 1 | — | 3 | 5 | 11 | 21 |
| Cerebral Spinal Meningitis ... | — | — | — | — | — | — | — | 1 | — | — | — | 1 |
| Acute Poliomyelitis | — | 1 | — | — | — | — | — | — | — | — | — | 1 |
| Ophthalmia Neonatorum ... | 1 | — | — | — | — | — | — | — | — | — | — | 1 |
| Totals ... | 4 | 6 | 14 | 17 | 27 | 126 | 64 | 15 | 17 | 14 | 19 | 323 |

The case of infectious disease per 1,000 living, as compared with England and Wales is as follows :—

| | Smallpox | Scarlet Fever | Diphtheria | Enteric Fever | Erysipelas | Pneumonia |
|---|---|---|---|---|---|---|
| England & Wales | 0.00 | 2.41 | 1.58 | 0.03 | 0.40 | 1.10 |
| Billingham U.D. | 0.00 | 8.0 | 4.8 | 0.00 | 1.10 | 1.02 |

## TUBERCULOSIS.

| Age Periods | New Cases | | | | Deaths | | | |
|---|---|---|---|---|---|---|---|---|
| | Pulmonary | | Non-Pulmonary | | Pulmonary | | Non-Pulmonary | |
| Years | M. | F. | M. | F. | M. | F. | M. | F. |
| 0-1 | — | — | — | — | — | — | — | — |
| 1-5 | — | 1 | 1 | — | — | — | — | — |
| 5-15 | — | 2 | 2 | 1 | 1 | 1 | — | — |
| 15-25 | 2 | — | — | — | — | — | — | — |
| 25-35 | 4 | 2 | — | — | 2 | 1 | — | — |
| 35-45 | 1 | — | — | — | — | — | — | — |
| 45-55 | 2 | 1 | — | — | — | — | — | — |
| 55-65 | — | — | — | — | — | — | — | — |
| 65 years and over | — | 1 | — | — | — | — | — | —<br>— |
| Totals | 9 | 7 | 3 | 1 | 3 | 2 | — | — |

### Population.

The Census of 1931 gave a resident population of 17,972. For the year 1938 the Registrar gives a figure of 20,870 as resident showing an increase of 2,898 since the Census.

### Births.

The total number of births was 382 of which 178 were males and 204 females. During 1937 406 were registered.

The Birth Rate is 18.3 as compared with 15.70 per 1,000 population for rest of England and Wales.

### Deaths.

During 1938 114 deaths were registered in the district. Adding to this the outward transfers and inward transfers to this district, gives a total of 166 for Billingham Urban District.

This gives a total death rate of 7.9 per 1,000 of resident population, and is an increase of 0.89 on 1937.

The Rate for England and Wales was 11.6.

### Infantile Deaths.

There were 18 deaths of children under 1 year of age. The infantile death rate is therefore 47 per 1,000 births.

The Rate for England and Wales was 53.

### Scarlet Fever.

There were 168 cases notified, 166 were removed to Hospital.

There was only one death.

### Diphtheria.

The number of cases notified was 102.

Removed to Hospital 102.

There were three deaths.

### Puerperal Pyrexia.

Three cases were notified and all made a good recovery.

### Ophthalmia Neonatorum.

One case was reported during 1938 and recovered with unimpaired vision.

### Erysipelas.

There were 21 cases notified, all recovering after treatment.

## Enteric Fever.

No case has been reported for the last 2 years.

## Isolation Hospital.

268 cases were sent to this Hospital during the year, a decrease of 19 on the previous year when 287 were sent.

## Nursing.

Good work is done by the District Nursing Association, and the sessions at the Maternity and Child Welfare Centres continue to be popular and well attended.

I have the honour to be,
Your obedient Servant,
THOMAS J. KIRK,
Medical Officer of Health.

## Birth-rates, Death-rates, Analysis of Mortality, Maternal Death-rates, and Case-rates for certain Infectious Diseases in the Year 1938.

(England and Wales, London, 126 Great Towns and 148 Smaller Towns).

**(Provisional Figures based on Weekly and Quarterly Returns).**

| | Billingham Urban District | England and Wales | 126 County Boroughs and Great Towns including London | 148 Smaller Towns (Resident Population 25,000 to 50,000 at 1931 Census) | London Administrative County |
|---|---|---|---|---|---|
| | Rates per 1,000 Population. | | | | |
| **Births.** | | | | | |
| Live ... ... ... | 18.3 | 15.1 | 15.0 | 15.4 | 13.4 |
| Still ... ... ... | 0.76 | 0.60 | 0.65 | 0.60 | 0.48 |
| **Deaths.** | | | | | |
| All Causes ... ... | 7.9 | 11.6 | 11.7 | 11.0 | 11.4 |
| Typhoid and Paratyphoid Fevers ... ... | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| Smallpox ... ... ... | 0.0 | 0.00 | — | 0.00 | — |
| Measles ... ... ... | 0.19 | 0.04 | 0.05 | 0.03 | 0.06 |
| Scarlet Fever ... ... | 0.04 | 0.01 | 0.01 | 0.01 | 0.01 |
| Whooping Cough ... | 0.00 | 0.03 | 0.03 | 0.02 | 0.03 |
| Diphtheria ... ... ... | 0.14 | 0.07 | 0.07 | 0.06 | 0.05 |
| Influenza ... ... ... | 0.04 | 0.11 | 0.10 | 0.11 | 0.06 |
| **Notifications.** | | | | | |
| Smallpox ... ... ... | 0.0 | 0.00 | 0.00 | 0.00 | — |
| Scarlet Fever ... ... | 8.0 | 2.41 | 2.60 | 2.58 | 2.05 |
| Diphtheria ... ... | 4.8 | 1.58 | 1.85 | 1.53 | 1.90 |
| Enteric Fever ... ... | 0.0 | 0.03 | 0.03 | 0.04 | 0.05 |
| Erysipelas ... ... ... | 1.10 | 0.40 | 0.46 | 0.39 | 0.46 |
| Pneumonia ... ... | 1.2 | 1.10 | 1.28 | 0.98 | 0.98 |
| | Rates per 1,000 Live Births. | | | | |
| Deaths under 1 year of age | 47 | 53 | 57 | 51 | 57 |
| Deaths from Diarrhoea and Enteritis under 2 years of age ... ... ... | Nil. | 5.5 | 7.8 | 3.6 | 13.1 |
| **Maternal Mortality.** | | | | | |
| Puerperal Sepsis ... ... | 0.00 | 0.89 | | | |
| Others ... ... ... | 0.09 | 2.19 | ... Not available | | |
| Total ... ... ... | 0.09 | 3.08 | | | |
| | Rates per 1,000 Total Births (i.e. Live and Still). | | | | |
| **Maternal Mortality.** | | | | | |
| Puerperal Sepsis ... ... | 0.00 | 0.86 | | | |
| Others ... ... ... | 0.09 | 2.11 | ... Not available | | |
| Total ... ... ... | 0.09 | 2.97 | | | |
| **Notifications.** | | | | | |
| Puerperal Fever ... ... | | 14.42 | 18.08 | 12.51 | 3.53 |
| Puerperal pyrexia ... | | | | | 15.46 |

# SENIOR SANITARY INSPECTOR'S REPORT FOR 1938.

Public Health Department,
Council Offices,
Haverton Hill,
June, 1939.

MR. CHAIRMAN, LADIES and GENTLEMEN,

I have much pleasure in presenting herewith my thirteenth annual report which covers the activities of my department during the year 1938.

The Slum Clearance Scheme at Old Port Clarence probably provided the most noticeable feature of the year, but, apart from that, there is considerable satisfaction in the knowledge that a good deal of sound work has also been carried out. I think this fact will be quite evident after a perusal of various sections of the report, and in particular is reflected in the increased number of inspections made, due, very largely, to the extra staff appointed some time ago.

These days it would be too much to expect a year without some new Act, and the year under review is no exception, as the Factory Act, 1937, came into operation on the 1st July, and contains certain obligations for the department.

Mention must inevitably be made of that topical subject A.R.P., to which a considerable amount of time and thought has, and is, being given. During the crisis in September, arrangements were pushed forward to provide essential first aid facilities, and it must be emphasised that these arrangements would have been much more difficult but for the detailed work done previously. However one may feel about this matter, there can be no doubt that A.R.P. has come to remain yet one more of the permanent duties of a local authority.

Finally, I wish to place on record and express my appreciation for the very able and wholehearted support I have received from the Chairman and Members of the Public Health Committee, and for the willing and loyal support from the members of my Staff.

I am,
Mr. Chairman, Ladies and Gentlemen,
Your obedient Servant,
A. H. RUSHWORTH,
Senior Sanitary Inspector.

## SUMMARY OF INSPECTIONS MADE AND OTHER DETAILS.

| | |
|---|---|
| Dwelling Houses, under inspection of District Regulations | 182 |
| Dwelling Houses, under Public Health Acts ... | 458 |
| Dwelling Houses, under Infectious Diseases ... ... | 292 |
| Dwelling Houses and Schools Disinfected ... ... | 246 |
| Bakehouses ... ... ... ... ... ... | 11 |
| Dairies, Milkshops and Conveyances ... ... | 66 |
| Cowsheds ... ... ... ... ... ... | 80 |
| Slaughterhouses ... ... ... ... ... | 11 |
| Verminous Premises ... ... ... ... ... | 195 |
| Fried Fish Shops ... ... ... ... ... | 9 |
| Wet Fish Shops ... ... ... ... ... | 10 |
| Meat and Other Foods ... ... ... ... | 747 |
| Ice Cream Premises ... ... ... ... ... | 10 |
| Samples of Food obtained ... ... ... ... | 51 |
| Water Samples obtained ... ... ... ... | 11 |
| Milk Samples taken for Bacteriological Examination | 111 |
| Milk Samples taken for Biological T.B. Examination | 84 |
| Drains Tested or Inspected ... ... ... ... | 137 |
| Complaints Investigated ... ... ... ... | 307 |
| Visits to Works in Progress ... ... ... ... | 357 |
| Visits to Premises under Notice ... ... ... | 807 |
| Smoke Abatement ... ... ... ... ... | 385 |
| Refuse Tips ... ... ... ... ... ... | 74 |
| Interviews ... ... ... ... ... ... | 168 |
| Stables and Piggeries ... ... ... ... ... | 15 |
| Factories ... ... ... ... ... ... | 5 |
| Workshops ... ... ... ... ... ... | 2 |
| Shops ... ... ... ... ... ... | 101 |
| Public Baths ... ... ... ... ... ... | 15 |
| Samples of Public Baths Water obtained ... ... | 1 |
| Butcher's "Making-Up" Places ... ... ... | 29 |
| Water Supply ... ... ... ... ... ... | 29 |
| Tents, Vans, Sheds, etc. ... ... ... ... | 1 |
| Refuse Collection ... ... ... ... ... | 16 |
| Rats and Mice ... ... ... ... ... ... | 77 |
| Schools ... ... ... ... ... ... | 16 |
| Offensive Accumulations ... ... ... ... | 3 |
| Allotments ... ... ... ... ... ... | 7 |
| Overcrowding ... ... ... ... ... ... | 109 |
| Miscellaneous Visits ... ... ... ... ... | 242 |
| Slum Clearance Scheme ... ... ... ... | 177 |

## NUMBER AND NATURE OF NOTICES.

| | |
|---|---|
| Informal Notices Served ... ... ... ... | 637 |
| Informal Notices Complied With ... ... ... | 559 |
| Informal Notices outstanding from previous years complied with ... ... ... ... ... | 74 |
| Statutory Notices Served ... ... ... ... | 14 |
| Statutory Notices Complied with ... ... ... | 9 |
| Statutory Notices outstanding from previous year complied with ... ... ... ... ... | 2 |

## SUMMARY OF NUISANCES ABATED AND DEFECTS REMEDIED.

### HOUSES.

| | | |
|---|---|---|
| Internal | Dampness ... ... ... ... ... | 27 |
| Defective | Roofs ... ... ... ... ... | 69 |
| ,, | Floors ... ... ... ... ... | 35 |
| ,, | Eavesgutters and Fallpipes ... ... | 67 |
| ,, | Doors and Fittings ... ... ... ... | 73 |
| ,, | Ballusters ... ... ... ... ... | 9 |
| ,, | Ceilings ... ... ... ... ... | 4 |
| ,, | Lintels and Sills ... ... ... ... | 11 |
| ,, | Window Frames, Cords, Glazing and Fastenings | 50 |
| ,, | Firegrates and Ovens ... ... ... | 22 |
| ,, | Brickwork ... ... ... ... ... | 32 |
| ,, | Plasterwork ... ... ... ... ... | 56 |
| ,, | Walls ... ... ... ... ... | 38 |
| ,, | Yard Pavings ... ... ... ... | 19 |
| ,, | Chimneys ... ... ... ... ... | 11 |
| ,, | Coppers ... ... ... ... ... | 11 |
| ,, | Water-pipes and Taps ... ... ... | 16 |
| ,, | Yard Walls ... ... ... ... ... | 25 |
| ,, | Sink Waste Pipes ... ... ... ... | 10 |

### WATER CLOSETS.

| | | |
|---|---|---|
| Defective | Doors ... ... ... ... ... | 19 |
| ,, | Roofs ... ... ... ... ... | 19 |
| ,, | Plasterwork ... ... ... ... ... | 22 |
| ,, | Eavesgutters and Fallpipes ... ... | 5 |
| ,, | Cisterns ... ... ... ... ... | 5 |
| ,, | Pedestals ... ... ... ... ... | 2 |
| ,, | Ball Valves ... ... ... ... ... | 6 |
| ,, | Seats ... ... ... ... ... | 10 |
| ,, | Floors ... ... ... ... ... | 1 |

### MISCELLANEOUS ITEMS.

| | |
|---|---|
| Cases of Overcrowding Abated ... ... ... | 51 |
| Dust Bins Provided or Renewed ... ... ... | 397 |
| Blocked Drains and Sink Waste Pipes Cleared ... | 66 |

| | |
|---|---|
| Verminous Premises Disinfected ... ... ... | 70 |
| Offensive Accumulations Removed ... ... ... | 4 |
| Rag Dealer distributing toys, warned ... ... | 3 |
| Books Disinfected ... ... ... ... ... | 408 |
| Drains Relaid or Reconstructed ... ... ... | 13 |
| Inspection Chamber Covers Provided ... ... | 5 |
| Yard Gullies Renewed ... ... ... ... ... | 12 |
| Defective Privy Midden Repaired ... ... ... | 1 |

## HOUSING.

The work done during the year under this heading can again be divided into the following sub-headings:—

(1) Slum Clearance.
(2) Repair or demolition of individual houses.

As stated in last year's report, the necessity for item (1) was due to a block of property at Old Port Clarence, included in your area under the County Review Order.

There were 92 houses in this block, consisting mainly of back-to-back houses and two lock-up shops. The whole area was inspected the previous year and declared to be a Clearance Area. No objection was raised by the owners and after the property had been inspected by an Inspector of the Ministry the Order was duly confirmed.

Many of these houses were verminous and to prevent infestation of the new houses it was decided to fumigate the effects of each tenant with HCN. The necessary fumigation was carried out by Messrs. I.C.I. Ltd., and all bedding was steam treated at the Isolation Hospital.

Under item (2) the repair or demolition of individual houses has received attention and 8 houses have been dealt with under Section 11 of the Housing Act. In six cases the owners considered that the houses were not worth repairing, and, therefore, demolition orders were made. In the remaining two cases, an undertaking by the owner to thoroughly repair and improve the houses was accepted.

Full details of the housing work done will be found under "Housing Statistics" and the following is a list of houses erected during the year :—

| | |
|---|---|
| (a) Total, including numbers given separately under (b) ... ... ... ... ... ... | 140 |
| (i) By Local Authority ... ... | 81 |
| (ii) By other bodies or persons ... | 59 |
| (b) With State Assistance under Housing Acts ... | 81 |

## HOUSING STATISTICS.

### 1. Inspection of Dwelling-houses during the year.

(1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts) ... ... ... ... ... ... 115

(b) Number of inspections made for the purpose ... 115

(2) (a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 ... ... ... ... ... 98

(b) Number of inspections made for the purpose ... 98

(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation ... ... ... ... ... 6

(4) Number of dwelling-houses (exclusive of those referred to under the previous sub-head) found not to be in all respects reasonably fit for human habitation ... ... ... ... ... ... 109

### 2. Remedy of Defects during the year without service of Formal Notices.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers ... ... ... ... 41

### 3. Action under Statutory Powers during the year.

(a) Proceedings under Sections 9, 10 and 16 of the Housing Act, 1936 :—

(1) Number of dwelling-houses in respect of which notices were served requiring repairs ... ... 6

(2) Number of dwelling-houses which were rendered fit after service of formal notices :—
(a) By owners ... ... ... ... ... 7
(b) By Local Authority in default of owners Nil

(b) Proceedings under Public Health Acts :—

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied ... ... ... ... ... ... Nil

(2) Number of dwelling-houses in which defects were remedied after service of formal notices:—
(a) By owners ... ... ... ... ... Nil
(b) By Local Authority in default of owners Nil

| | |
|---|---|
| (c) Proceedings under sections 11 and 13 of the Housing Act, 1936 :— | |
| (1) Number of dwelling-houses in respect of which Demolition Orders were made ... ... ... | 6 |
| (2) Number of dwelling-houses demolished in pursuance of Demolition Orders ... ... ... ... | 2 |
| (d) Proceedings under section 12 of the Housing Act, 1936 :— | |
| (1) Number of separate tenements or underground rooms in respect of which Closing Orders were made ... ... ... ... ... ... | Nil |
| (2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit ... ... ... ... ... | Nil |

## 4. Housing Act, 1936.—Part IV.—Overcrowding.

| | |
|---|---|
| (a) (1) Number of dwelling-houses overcrowded at the end of the year ... ... ... ... ... | 31 |
| (2) Number of families dwelling therein ... ... | 32 |
| (3) Number of persons dwelling therein ... ... | 256 |
| (b) Number of new cases of overcrowding reported during the year ... ... ... ... ... ... | 5 |
| (c) (1) Number of cases of overcrowding relieved during the year ... ... ... ... ... ... | 53 |
| (2) Number of persons concerned in such cases ... | 397 |
| (d) Particulars of any cases in which dwelling-houses have again become overcrowded after the Local Authority have taken steps for the abatement of overcrowding ... ... ... ... ... ... | Nil |
| (e) Any other particulars with respect to overcrowding conditions upon which the Medical Officer of Health may consider it desirable to report ... ... ... | Nil |

## WATER.

An abundant supply of good quality soft water is provided throughout the area by the Tees Valley Water Board. Apart from a few farms and isolated cottages which are supplied by wells, each house has a separate supply.

The Engineer and Manager of the Board has supplied me with the following information with regard to this water supply, giving the steps taken to ensure that a pure and wholesome supply is provided :—

" The Urban District of Billingham is supplied with "water by the Tees Valley Water Board. The Board is a "statutory body whose members are appointed by the "Corporations of Stockton-on-Tees, Middlesbrough and "Thornaby-on-Tees. The limits of supply consist of an "area of about 200 square miles, extending nearly 40 miles "Westwards from the mouth of the River Tees. Water is "drawn for supply (a) by gravitation from impounding "reservoirs of 2,655 million gallons capacity, with a moor-"land catchment area of 30,080 acres, on the Balder and "Lune, tributaries of the River Tees, West of Barnard "Castle on the Yorkshire side of the River, and (b) by "pumping from the River Tees at intakes situated about "two miles west of Darlington. The purification of the "gravitation supply is effected by slow sand filter beds "covering an area of 6.7 acres at Lartington, and the pumped "supply is similarly dealt with by 3.24 acres of slow "sand filter beds near the Darlington intakes. As a "further precaution, the supply is sterilised by carefully "regulated chlorination apparatus subsequent to filtration. "The water is distributed by a complex network of mains, "the pressure zones being governed by various service "reservoirs of a total capacity of 271 million gallons, "situated at appropriate points. The Board have a labora-"tory at the Works at Darlington for routine water "examination and control, but in addition has sent during "the year 133 samples for independent bacteriological and "chemical examination by Dr. E. V. Suckling, M.B., B.S., "D.P.H., etc., of the Counties P.H. Laboratories, Queen "Victoria Street, London. A typical example of one of such "reports is given below, and examination of the full series "shows that a high standard of purity has been consistently "maintained."

The Counties Public Health Laboratories,
91 Queen Victoria Street,
London, E.C.4.

"Analysis of a sample of water received on 14.5.38 "from Tees Valley Water Board. Labelled Tap at Mrs. "Rhea's, 51 Collingwood Road, Haverton Hill.

"Taken by A. S. Ayre. Witness, Mr. Walker. Date, "13.5.38, 10-5 a.m."

| | Chemical Results in Parts per 100,000 |
|---|---|
| “Appearance | Clear and bright |
| “Colour A.P.H.A. | Yellow-brown 45 |
| “Odour | Nil. |
| “Reaction pH | Neutral 7.5 |
| “Free Carbonic Acid | — |
| “Electric Conductivity at “ 20 deg. C. | 195 |
| “Total Solids, 180 deg. C. | 14.0 |
| “Chlorine in Chlorides | 1.1 |
| “Nitrogen in Nitrates | Nil. |
| “Nitrites | Absent |
| “Hardness : Permanent | 3.5 |
| “ Temporary | 4.5 |
| “ Total | 8.0 |
| “Metals | Absent |
| “Free Ammonia | 0.0000 |
| “Ammoniacal Nitrogen | — |
| “Albuminoid Nitrogen | — |
| “Albuminoid Ammonia | 0.0056 |
| “Oxygen absorbed in 4 hrs. “ at 80 deg. F. | 0.330 |

| “ “ | Bacteriological Results |
|---|---|
| “No. of Bacteria per c.c. | |
| “On Agar in 3 days at 20 deg. C. | 65 |
| “On Agar in 1 day at 37 deg. C. | 2 |
| “On Agar in 2 days at 37 deg. C. | 3 |

“The Bacillus Coli ... Present in — Absent in 100 c.c.
“Bacillus Welchii
“(B. Enteritidis Sporogenes) ... Present in 100 c.c.
“ ... Absent in 10 c.c.

## Report.

“This sample is clear and bright, but has distinct colour “due to the presence of a little vegetable or peaty matter. “The water is neutral in reaction, of very moderate hardness, “contains no excess of saline or mineral matter in solution, “no metals, and is of satisfactory organic and bacterial “purity.

“We regard it, therefore, as wholesome in character, “and suitable for drinking and domestic purposes.

“(Sgd.) ERNEST SUCKLING, Dr.”

In addition to the foregoing, three samples of water have been obtained at different points in your area and sent to the County Analyst, one for full analysis and two for bacteriological examination. The results obtained closely agreed with the above report.

Several samples of isolated supplies were taken, four of which were adversely reported on by the Analyst. In one case, the water supply was obtained from an open pond, and the house was later the subject of a demolition order. Another house with a polluted well was also demolished. Five other houses obtaining their water from polluted wells were provided with piped supplies, and the well at a farm, showing slight pollution, was thoroughly cleansed and repaired.

---

## DRAINAGE AND SEWERAGE.

As mentioned in last year's report, when taken over, the Wolviston Sewerage Works were found to be in a very deplorable condition, but after a complete overhaul by the Engineer and Surveyor a more satisfactory effluent is now obtained, although the Beck taking the effluent is undoubtedly seriously polluted.

These sewage works are now serving a much wider area than was originally intended, and when the scheme which the Council have in hand for laying a new sewer North of Billingham Station to Greatham Beck is completed, the sewage works will not be necessary and may be abandoned.

## CLOSET ACCOMMODATION.

There is no change with regard to this matter, except that there is a reduction of 91 privies due to the demolition of houses at Old Port Clarence and elsewhere.

The necessary work of carrying out the conversions in Wolviston will receive attention in the near future.

The number and type of conveniences attached to private houses and shops is given below :—

| | |
|---|---|
| Privies ... ... | 154 |
| Waterclosets ... | 5,517 |

## PUBLIC CLEANSING.

A detailed report on Refuse Collection and Disposal follows this report.

## BAKEHOUSES.

The four bakehouses in the area have been inspected occasionally and a good standard of cleanliness is maintained.

## SHOPS.

Inspection of shops with regard to ventilation, temperature and sanitary conveniences has been carried out and 101 inspections have been made for this purpose. This has resulted in 4 cases of insufficient heating and 1 case of insufficient sanitary accommodation being remedied.

## OFFENSIVE TRADES.

Fish frying is the only scheduled trade and there are 18 premises registered under this trade. Only one complaint was received with regard to these premises, where empty fish boxes placed in a garden gave cause for offence. Otherwise, a good standard of cleanliness is maintained.

## INSPECTION AND SUPERVISION OF FOOD.

### (a) Milk Supply.

The work of sampling all milk supplies for bacteriological and biological examination has been carried out approximately every three months, and very good work has been achieved thereby. The number of samples has increased, due, of course, to the added area, and out of 84 samples submitted for the biological T.B. test 5 were found positive, equal to 5.95% as against 9.25% for the previous year. The usual procedure was followed in connection with these positive samples, and as a result, 3 diseased cows were removed and slaughtered by the Divisional Veterinary Officer. Also, the herds were kept under observation until reasonably sure that the milk supply was free from tubercle bacilli.

Of the 111 samples taken for bacteriological examination 90 were primary samples, and the 21 repeat samples represent 12 supplies, giving a percentage of 13.3 repeats as against 22.4 for the previous year.

The phosphatase test was applied to 10 samples of milk in respect of two supplies licensed to sell pasteurised milk and one supply of flash pasteurised milk. This latter supply failed to pass the test, indicating inefficient pasteurisation.

A list of the samples taken is given below, and to show the results obtained, repeat samples (marked with an asterisk) are shown underneath the primary sample :—

| Sample No. | Micro-organisms per 1 ml. | Coliform Content. | | | | Methylene Blue Test | Grade |
|---|---|---|---|---|---|---|---|
| | | 1 ml. | .1 ml. | .01 ml. | .001 ml. | | |
| 266 | 43,600 | + | — | — | — | Satisfactory | Non-graded |
| 267 | 990 | — | — | — | — | ,, | ,, |
| 268 | Uncountable | + | + | + | + | Unsatisfactory | Non-graded |
| *294 | 212,000 | + | + | + | — | ,, | ,, |
| *304 | 448,000 | + | + | + | — | ,, | ,, |
| *331 | 640,000 | + | + | + | + | ,, | ,, |
| *359 | 269,000 | + | + | + | — | ,, | ,, |
| 269 | 408,000 | + | + | + | + | ,, | Accredited |
| *293 | 5,900 | — | — | — | — | Satisfactory | ,, |
| 270 | 45,000 | + | — | — | — | ,, | ,, |
| 271 | 32,800 | — | — | — | — | ,, | Non-graded |
| 272 | 450 | — | — | — | — | ,, | ,, |
| 273 | 36,000 | — | — | — | — | ,, | Accredited |
| 274 | 15,300 | + | + | — | — | ,, | Non-graded |
| 275 | 1,100 | + | — | — | — | ,, | ,, |
| 276 | 10,300 | — | — | — | — | ,, | ,, |
| 277 | 51,500 | + | + | — | — | ,, | ,, |
| 278 | 15,000 | — | — | — | — | ,, | Pasteurised |
| 279 | 3,600 | — | — | — | — | ,, | Accredited |
| 280 | 950 | + | — | — | — | ,, | ,, |
| 281 | 2,320 | — | — | — | — | ,, | Non-graded |
| 282 | 2,160 | — | — | — | — | ,, | Accredited |
| 283 | 192,000 | + | + | — | — | Unsatisfactory | ,, |
| *300 | 22,500 | + | — | — | — | Satisfactory | ,, |
| 284 | 11,200 | + | — | — | — | ,, | T.B. Tested |
| 285 | 1,280 | + | — | — | — | ,, | Pasteurised |
| 286 | 11,200 | + | + | — | — | ,, | Non-graded |
| 287 | 17,000 | — | — | — | — | ,, | ,, |
| 288 | 37,000 | + | — | — | — | ,, | Flash Pasteurised |
| 289 | 4,400 | — | — | — | — | ,, | Accredited |
| 290 | 1,750 | — | — | — | — | ,, | Non-graded |
| 291 | 3,020 | — | — | — | — | ,, | Accredited |
| 292 | Uncountable | — | — | — | — | Unsatisfactory | ,, |
| *328 | 4,700 | — | — | — | — | Satisfactory | ,, |
| 295 | 7,500 | + | — | — | — | Satisfactory | Non-graded |
| 296 | 1,232,000 | + | + | + | — | Unsatisfactory | ,, |
| 297 | 30,800 | + | + | + | + | Satisfactory | ,, |
| *322 | 690 | + | + | + | + | ,, | ,, |
| 298 | 13,900 | + | + | — | — | ,, | ,, |
| 299 | 6,800 | — | — | — | — | ,, | ,, |
| 301 | 4,900 | — | — | — | — | ,, | ,, |
| 302 | 22,000 | — | — | — | — | ,, | Accredited |
| 303 | 760 | + | — | — | — | ,, | Non-graded |
| 305 | 16,000 | — | — | — | — | ,, | ,, |

| Sample No | Micro. organisms per 1 ml. | Coliform Content 1 ml. | .1 ml. | .01 ml. | .001 ml. | Methylene Blue Test | Grade |
|---|---|---|---|---|---|---|---|
| 306 | 17,400 | + | + | + | — | Satisfactory | Non-graded |
| 307 | 450,000 | + | + | — | — | Unsatisfactory | ,, |
| 308 | 58,000 | — | — | — | — | Satisfactory | Accredited |
| 309 | 1,144,000 | + | + | + | — | Unsatisfactory | Non-graded |
| *327 | 728,000 | + | + | + | + | ,, | ,, |
| *343 | 249,000 | + | + | — | — | ,, | ,, |
| 310 | 93,000 | — | — | — | — | Satisfactory | ,, |
| 311 | 5,900 | — | — | — | — | ,, | ,, |
| 312 | 4,100 | — | — | — | — | ,, | Accredited |
| 313 | 5,400 | — | — | — | — | ,, | ,, |
| 314 | 15,700 | + | + | — | — | ,, | ,, |
| 315 | 386,000 | + | + | + | — | Unsatisfactory | Non-graded |
| *338 | 58,000 | + | — | — | — | Satisfactory | ,, |
| 316 | 470,000 | — | — | — | — | Unsatisfactory | Accredited |
| *334 | 840 | + | — | — | — | Satisfactory | ,, |
| 317 | 9,900 | + | + | + | + | ,, | T.B. Tested |
| *339 | 576,000 | + | + | + | + | Unsatisfactory | ,, |
| *342 | Uncountable | + | + | + | + | ,, | ,, |
| *346 | 920 | + | — | — | — | — | ,, |
| 318 | 186,000 | + | + | + | + | — | Flash Pasteurised |
| *335 | 752,000 | + | + | + | + | — | ,, |
| *341 | Uncountable | + | + | + | + | Unsatisfactory | ,, |
| *347 | 3,040 | + | + | + | — | — | ,, |
| 319 | 1,310 | + | + | — | — | — | Pasteurised |
| 320 | 29,000 | — | — | — | — | Satisfactory | Non-graded |
| 321 | 5,700 | — | — | — | — | ,, | Accredited |
| 323 | 21,000 | + | — | — | — | ,, | ,, |
| 324 | 10,700 | + | + | + | + | ,, | Pasteurised |
| *344 | 86,000 | + | + | + | + | ,, | ,, |
| *348 | 1,410 | + | + | + | + | — | ,, |
| 325 | 1,420 | + | — | — | — | Satisfactory | Non-graded |
| 326 | 81,000 | + | + | + | — | ,, | ,, |
| 329 | 11,400 | — | — | — | — | ,, | ,, |
| 330 | 9,100 | + | + | + | + | ,, | ,, |
| *340 | 67,400 | + | + | — | — | ,, | ,, |
| 332 | 8,800 | — | — | — | — | — | Pasteurised |
| 333 | 11,600 | + | + | — | — | Satisfactory | Non-graded |
| 336 | 12,300 | — | — | — | — | ,, | ,, |
| 337 | 20,200 | — | — | — | — | ,, | Accredited |
| 345 | 8,400 | + | — | — | — | ,, | Non-graded |
| 349 | 34,700 | + | + | + | — | ,, | Accredited |
| 350 | 7,900 | + | — | — | — | ,, | ,, |
| 351 | 51,000 | + | — | — | — | ,, | Non-graded |
| 352 | 131,000 | — | — | — | — | ,, | Accredited |

| Sample No. | Micro-organisms per 1 ml. | Coliform Content 1 ml. | .1 ml. | .01 ml. | .001 ml. | Methylene Blue Test | Grade |
|---|---|---|---|---|---|---|---|
| 353 | 7,800 | — | — | — | — | Satisfactory | Accredited |
| 354 | 910 | + | + | — | — | ,, | Non-graded |
| 355 | 29,400 | + | — | — | — | ,, | Accredited |
| 356 | 58,000 | — | — | — | — | ,, | Non-graded |
| 357 | 510 | — | — | — | — | ,, | ,, |
| 358 | 13,600 | — | — | — | — | ,, | ,, |
| 360 | 680 | + | + | — | — | ,, | Accredited |
| 361 | 500 | — | — | — | — | ,, | Non-graded |
| 362 | 1,790 | — | — | — | — | ,, | ,, |
| 363 | 1,760 | + | — | — | — | ,, | ,, |
| 364 | 280 | + | — | — | — | ,, | ,, |
| 365 | 1,040 | — | — | — | — | ,, | ,, |
| 366 | 200 | — | — | — | — | ,, | ,, |
| 367 | 1,290 | — | — | — | — | ,, | Accredited |
| 368 | 3,380 | — | — | — | — | ,, | Non-graded |
| 369 | 1,460 | + | — | — | — | — | Pasteurised |
| 370 | 23,200 | — | — | — | — | — | ,, |
| 371 | 2,820 | — | — | — | — | — | Flash Pasteurised |
| 372 | 1,990 | — | — | — | — | Satisfactory | Non-graded |
| 373 | 3,340 | + | + | — | — | — | Pasteurised |
| 374 | 2,500 | + | — | — | — | Satisfactory | Accredited |
| 375 | 10,600 | + | — | — | — | ,, | T.B. Tested |
| 376 | 24,500 | + | + | — | — | ,, | Accredited |

During the year one producer applied to the County Council for an "Accredited" licence, which was granted after modifications to two cow-byres and the provision of a sterilising outfit.

The number of farmers holding "Accredited" licences is now 8, approximately one-third of the registered cowkeepers.

The undermentioned licences have been granted to retail purveyors for the sale of graded milk:—

| | |
|---|---|
| "Tuberculin Tested" Milk ... | 2 |
| "Accredited" Milk ... | 2 |
| "Pasteurised" Milk ... | 2 |

The following table gives the number of persons and premises registered as required by the appropriate legislation :—

| | |
|---|---|
| Register of Farms and Other Places used as Dairies ... | 37 |
| Register of Retail Purveyors of Milk ... ... ... | 49 |
| Register of Cowkeepers, Dairymen and Wholesale Purveyors of Milk ... ... ... ... ... | 26 |

### (b) Meat and Other Foods.

The three slaughterhouses at Wolviston have necessitated a large increase in the number of inspections made and, in this, the first complete year after their inclusion in your district, 747 inspections have been made; an increase of 436 over the year 1936.

These inspections resulted in the following carcase and offal being condemned :—

The entire carcase and offal of 1 beast.

| | |
|---|---|
| Part carcase of beast ... | 12 stone and head. |
| Offal ... ... ... | 2 stone. |
| Miscellaneous Organs ... | 26. |
| Pork ... ... ... | 6-lbs. |
| Pork ... ... ... | 5 pigs' heads. |

There are five slaughterhouses which are well maintained, and a good degree of cleanliness is observed.

Routine ante-mortem inspections are not carried out. A large percentage of the animals slaughtered are first class quality and it is doubtful whether ante-mortem inspections would be worth the amount of work entailed thereby. As in the past, all condemned material was voluntarily surrendered and destroyed without the need for legal action.

Shops, vehicles and places where food is prepared have received attention, and, generally, there has been little to complain of.

### (c) Adulteration.

During the year 51 samples of various foodstuffs were submitted to the Public Analyst, all of which were found to be genuine.

The following is a list of the various foodstuffs purchased:

| Nature of Sample | Formal or Informal | Analyst's Report |
|---|---|---|
| Tea ... ... ... ... | Informal | Genuine Quality |
| Tin of Milk ... ... ... | do. ... | do. |
| Corned Beef ... ... ... | do. ... | do. |
| Brawn ... ... ... ... | do. ... | do. |
| Sausage ... ... ... | do. ... | do. |
| Lard ... ... ... ... | do. ... | do. |
| Black Currant Cordial ... ... | do. ... | do. |
| Camphorated Oil ... ... | do. ... | do. |
| Apple Chutney ... ... ... | do. ... | do. |
| Margarine ... ... ... | do. ... | do. |

| Nature of Sample | Formal or Informal | Analyst's Report |
|---|---|---|
| Honey ... ... ... ... | do. ... | do. |
| Luncheon Roll ... ... ... | do. ... | do. |
| Tomato Sausage ... ... | do. ... | do. |
| Crab Paste ... ... ... | do. ... | do. |
| Liver Paste ... ... ... | do. ... | do. |
| Tomatoes ... ... ... | do. ... | do. |
| Brawn ... ... ... ... | do. ... | do. |
| Tea ... ... ... ... | do. ... | do. |
| Margarine ... ... ... | do. ... | do. |
| Sausage ... ... ... ... | do. ... | do. |
| Sausage ... ... ... ... | do. ... | do. |
| Sausage ... ... ... ... | do. ... | do. |
| Coffee ... ... ... ... | do. ... | do. |
| Salad Cream ... ... ... | do. ... | do. |
| British Sherry ... ... ... | do. ... | do. |
| Lemon and Barley Crystals ... | do. ... | do. |
| Ground Rice ... ... ... | do. ... | do. |
| Cooking Fat ... ... ... | do. ... | do. |
| Fish Cakes ... ... ... | do. ... | do. |
| Ice Cream ... ... ... | do. ... | do. |
| Tin of Sardines ... ... | do. ... | do. |
| Ground Ginger ... ... ... | do. ... | do. |
| Lime Juice Cordial ... ... | do. ... | do. |
| Margarine ... ... ... | do. ... | do. |
| Lard ... ... ... ... | do. ... | do. |
| Cokernut Sweets ... ... | do. ... | do. |
| Fairy Nougats ... ... ... | do. ... | do. |
| Olive Oil ... ... ... ... | do. ... | do. |
| Pepper ... ... ... ... | do. ... | do. |
| Scotch Sausage ... ... ... | do. ... | do. |
| Apricot Jam ... ... ... | do. ... | do. |
| Lemon Curd ... ... ... | do. ... | do. |
| Cream ... ... ... ... | do. ... | do. |
| Cream ... ... ... ... | do. ... | do. |
| Honey ... ... ... ... | do. ... | do. |
| Lobster ... ... ... ... | do. ... | do. |
| Beef Suet ... ... ... | do. ... | do. |
| Plum Pudding ... ... ... | do. ... | do. |
| Mincemeat ... ... ... | do. ... | do. |
| Peas ... ... ... ... | do. ... | do. |
| Ground Almonds ... ... | do. ... | do. |

### (d) Chemical and Bacteriological Examination of Food.

All chemical work is done by the County Analyst, and bacteriological and biological examination of milk samples is performed at King's College, Newcastle-upon-Tyne.

### (e) Nutrition.

No special work on nutrition has been done.

## SWIMMING BATHS AND POOLS.

The one swimming pool in the district is owned by the Council and it is pleasing to note that increasing use is being made of the facilities provided. During 1938, 74,343 persons used the swimming pool—an increase of 13,728 over the previous year.

The baths have been kept open during the winter, and from November 1st, 1938, to March 27th, 1939, 12,643 persons used the swimming pool, an average of 86 per day, showing an increase of 2,078 persons or an average increase of 14 persons per day over the corresponding period of the previous year. From these figures it will be seen that the baths are well patronised, a fact which cannot fail to have a beneficial effect on the health of the district.

The filtration and chlorination plants have been kept in good order, and the water is always bright and perfectly clear.

The following is a copy of the analyst's report on a sample of water obtained on the 24th August, 1938, after a heavy bathing load, which indicates that the water was perfectly satisfactory, and, in effect, almost sterile.

| | |
|---|---|
| "Number of colonies on Nutrient Agar " at 37 deg. C. after 72 hours ... | 3 in 2 ml. |
| "Number of colonies on Nutrient Agar " at 20/22 deg. C. after 72 hours ... | 4 per ml. |
| "Presumptive B. Coli test at 37 deg. C. " after 72 hours ... ... ... | Negative in 100 ml. |
| "Clostridium Welchii test at 37 deg. C. | Negative in 40 ml. |
| "Free Chlorine ... ... ... ... | None. |

"This sample attains the quality of purity which is desirable in "a water intended for drinking purposes and it is, therefore, "of highly satisfactory purity from the bacteriological stand- "point.

" (Signed) CYRIL J. H. STOCK,
" County Analyst."

The use of the facilities provided for Slipper, Brine and Zotofoam baths is indicated below, the figures being compared with those for the previous year :—

| | 1938 | 1937 |
|---|---|---|
| Slipper Baths ... ... ... | 304 | 175 |
| Brine Baths ... ... ... | 211 | 78 |
| Zotofoam Baths ... ... ... | 64 | 80 |

## SMOKE ABATEMENT.

This matter is still a very contentious one and unremitting attention has been given thereto. The chief causes for complaint are :—

(a) Fumes from a sulphuric acid plant.
(b) Emission of coke breeze and dust from a water gas generating plant.
(c) Emission of dust from a cement works.
(d) Emission of dust and grit from powdered fuel boilers.
(e) Dust from a fertiliser plant.

Again, the Public Health Committee has given full consideration to these nuisances, and their line of approach in attempting to solve the problems has been to work in a friendly spirit with the firms concerned. The firms on their part have shown a very commendable willingness to co-operate with the Committee, and over a number of years many decided improvements have been made, for which due credit must be given, although conditions at times are by no means what they should be.

I, myself, have given very close consideration to these undeniable nuisances. A large number of samples of dust and grit have been collected and examined microscopically; the works kept under careful observation; and a very close touch with the works maintained by frequent interviews with responsible officials.

The position with regard to each nuisance is briefly summarised as follows:—

(a) On the whole, complaints regarding these fumes have been confined to occasions when there has been some breakdown on the plant, otherwise, the apparatus erected some time ago for dealing with these gases has made, and maintained, a decided improvement in the effluent.

(b) As stated in my annual report for 1937, work was proceeding on the modification to cyclones on this plant whereby it was hoped that the nuisance from this source would be very greatly reduced. The necessary work has now been completed and there is no doubt that the measures adopted have been extremely successful.

(c) Towards the end of 1937, negotiations were taking place with a view to improving the existing dedusting apparatus or installing a more efficient type. The Clerk and myself interviewed the Chairman of the Board of Directors and the Secretary, to state the Council's case regarding this nuisance. Shortly afterwards, the firm stated that they had decided to instal an Electrostatic Dust Precipitator at a cost of some £15,000, and the necessary work was commenced without delay.

(d) For some time now I have been convinced that more dust and grit comes from this source than is generally acknowledged. A good deal of microscopic work which I have carried out during 1938 has helped to further convince me that these boilers are now the major cause of the emissions of dust and grit, which, without doubt, cause a substantial nuisance to the people living in the affected area. Towards the year-end this nuisance became so acute that a deputation was appointed to interview representatives of the Company regarding the different emissions from their works.

(e) As stated in my report for 1937, this matter was receiving attention at the year-end with a view to having a suitable dedusting apparatus installed. This apparatus was completed early in 1938, and I have not since observed any emissions from this source.

## INFECTIOUS DISEASE.

In the following tables, the position respecting Scarlet Fever and Diphtheria is clearly indicated. It will be seen that although Diphtheria increased by 36 cases, Scarlet Fever decreased by 46 cases, leaving a net decrease of 10 cases on the two diseases.

Table 1 gives the totals for the year.
Table 2 gives the notifications each month.
Table 3 gives the number of cases in each ward, case rate per thousand, and totals for the whole area.

Each table also includes a comparison with the previous year.

TABLE No. 1.

| Disease | 1937 | 1938 | Increase | Decrease |
|---|---|---|---|---|
| Scarlet Fever ... | 219 | 173 | — | 46 |
| Diphtheria ... | 70 | 106 | 36 | — |
| Totals ... | 289 | 279 | — | 10 |

## TABLE No. 2.

| Month | Scarlet Fever | | Diphtheria | |
|---|---|---|---|---|
| | 1937 | 1938 | 1937 | 1938 |
| January ... ... ... | 18 | 29 | 5 | 4 |
| February ... ... ... | 14 | 39 | 2 | 10 |
| March ... ... ... | 19 | 18 | 8 | 5 |
| April ... ... ... | 17 | 9 | 10 | 7 |
| May ... ... ... | 14 | 13 | 9 | 6 |
| June ... ... ... | 12 | 12 | 6 | 4 |
| July ... ... ... | 8 | 13 | 1 | 9 |
| August ... ... ... | 12 | 8 | 4 | 6 |
| September ... ... | 11 | 10 | 2 | 23 |
| October ... ... ... | 30 | 9 | 6 | 14 |
| November ... ... | 34 | 6 | 13 | 11 |
| December ... ... | 30 | 7 | 4 | 7 |
| Totals ... | 219 | 173 | 70 | 106 |

## TABLE No. 3.

| Ward | Estimated Population | Scarlet Fever | Diph. | Case rate per 1,000 | |
|---|---|---|---|---|---|
| | | | | S.F. | Diph. |
| St. Cuthbert's | 6,740<br>(6,613) | 59<br>(53) | 44<br>(20) | 8.74<br>(8.01) | 6.53<br>(3.02) |
| Chilton's ... | 5,818<br>(5,818) | 43<br>(53) | 30<br>(20) | 7.39<br>(9.11) | 5.16<br>(3.44) |
| Wolviston | 1,533<br>(1,317) | 2<br>(11) | 1<br>(1) | 1.3<br>(8.35) | .65<br>(0.76) |
| Haverton Hill (North) ... | 6,116<br>(6.116) | 26<br>(51) | 21<br>(17) | 4.25<br>(8.34) | 3.43<br>(2.78) |
| Haverton Hill (South) ... | 2,282<br>(2,282) | 27<br>(39) | 4<br>(9) | 11.84<br>(17.1) | 1.75<br>(3.94) |
| Clarence ... | 1,169<br>(1,169) | 9<br>(11) | 6<br>(3) | 7.69<br>(9.41) | 5.13<br>(2.57) |
| Cowpen ... | 154<br>(162) | 7<br>(1) | —<br>(—) | 45.45<br>(6.17) | —<br>(—) |
| Totals ... | 23,812<br>(23,477) | 173<br>(219) | 106<br>(70) | 7.26<br>(9.32) | 4.45<br>(2.98) |

(Corresponding figures for the previous year are shown in brackets).

Medical Practitioners have, as usual, been supplied with diphtheria anti-toxin on request, 11 tubes being issued.

It is customary to remove and disinfect books from infected houses, and during the year, 408 books were treated before being returned to circulation.

With three exceptions, due in each case to the patient being affected with another complaint, all cases were removed to hospital and the premises disinfected.

## SCHOOLS.

The schools in the area have been inspected and minor defects were found at Port Clarence Roman Catholic Schools in connection with the sanitary accommodation. Otherwise, the sanitary condition of the schools is good, and each school is provided with a water supply by the Tees Valley Water Board.

## VERMINOUS PREMISES.

During the year 59 complaints regarding verminous premises were received. Of these, six council houses and 21 other houses were found to be bug infested. Each house was disinfected, the method being as follows :—

(a) Removing wallpapers and woodwork.
(b) Heating rooms to a temperature of 90 to 95 deg. Fah.
(c) Fumigating with sulphur at the rate of 6-lbs. per 1,000 cubic feet of room space.
(d) Repeating this procedure after an interval of two or three weeks.

In bad cases where the beds are involved, the bedding is destroyed and the tenants are instructed to dismantle the beds and treat same with paraffin. Very slight infestations are dealt with by spraying with an insecticide made in the department.

Except for the Slum Clearance Scheme, no steps are taken to ensure that the belongings of tenants are free from vermin before removal to Council houses. The work of disinfestation is carried out by the Council. The measures of supervision or education of tenants to prevent infestation or reinfestation is done by frequent visits and help in every way possible is given – providing the tenant will co-operate. Generally, a good response is forthcoming and very good results have been obtained by these methods.

The remaining 32 complaints regarding other infestations were dealt with and appropriate steps taken in each case.

## HEALTH PROPAGANDA.

Continuous propaganda has been carried on throughout the year through the medium of specially designed posters exhibited on boards erected in different parts of the area for this particular purpose.

## ANNUAL RAINFALL.

The annual rainfall in the area for the past six years has been as follows :—

| Year | 1933 | 1934 | 1935 | 1936 | 1937 | 1938 |
|---|---|---|---|---|---|---|
| Inches | 21.325 | 20.228 | 25.970 | 26.569 | 22.850 | 23.452 |

# REPORT ON REFUSE COLLECTION AND DISPOSAL FOR 1938-1939.

Cleansing Department,
Council Offices,
Haverton Hill,
June, 1939.

MR. CHAIRMAN, LADIES AND GENTLEMEN,

I have much pleasure in presenting herewith my ninth annual report on the collection and disposal of refuse covering the financial year ended 29th March, 1939.

There is nothing of outstanding interest to which I would direct your attention, as the working of this service has followed on the same lines as those of previous years.

I am,
Your obedient Servant,
A. H. RUSHWORTH,
Senior Sanitary Inspector.

## Manual Labour.

The number of men employed and the nature of their employment is as follows :—

| | |
|---|---|
| Refuse Collection ... ... | 12 |
| Refuse Disposal ... ... | 1 |
| Freighter Driving ... ... | 2 |
| | 15 |

Manual labour absorbs 80.6% of the total cost of this service.

## Vehicles.

The two SD freighters purchased 9½ and 8½ years ago are still in commission, but due to extra work they are now engaged to capacity, and the purchase of a new vehicle will have to be considered in the near future.

Information regarding these machines is given in the following tables :—

RELIABILITY.

| Vehicle | Possible No. of hours | No. of hours lost for repairs | Percentage of hours worked |
|---|---|---|---|
| 9 cubic yard | 2,387½<br>(2,402) | 65<br>(59½) | 97.27<br>(97.52) |
| 10 cubic yard | 2,393½<br>(2,401½) | 86<br>(73½) | 96.4<br>(96.94) |

## RUNNING COSTS.

| Vehicle | Total Cost | Wages | Licences, etc. | Petrol, Oil and Grease | Repairs |
|---|---|---|---|---|---|
| | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| 9 cu. yd. | 322 6 4 | 197 6 6 | 46 3 1 | 56 16 5 | 22 0 4 |
| | (326 18 11) | (179 11 10) | (47 3 6) | (52 17 8) | (47 5 11) |
| 10 cu. yd. | 307 18 9 | 192 11 1 | 41 3 1 | 52 13 2 | 21 11 5 |
| | (294 2 3) | (177 15 0) | (41 6 1) | (52 16 10) | (22 4 4) |

## NUMBER AND WEIGHT OF LOADS REMOVED.

| Vehicle | No. of Loads removed | Weight per load | Total Weight |
|---|---|---|---|
| | | T. C. Q. | T. C. Q. |
| 9 cubic yard | 1,077 | 2 8 1 | 2,598 5 1 |
| | (1,055) | (2 8 1) | (2,545 3 3) |
| 10 cubic yard | 1,049 | 2 8 1 | 2,530 14 1 |
| | (1,027) | (2 8 1) | (2.477 12 3) |
| | | Total Tonnage | 5,128 19 2 |
| | | | (5,022 16 2) |
| Horse & Cart (Night Soil) | 137 | 15 0 | 102 15 0 |
| | (100) (approx.) | (15 0) estimated | (75 0 0) |
| | | Grand Totals | 5,231 14 2 |
| | | | (5,097 16 2) |

## MILES PER LOAD AND PETROL CONSUMPTION.

| Vehicle | Loads removed | Miles run | Petrol (Gallons) | Miles per gallon | Miles per load |
|---|---|---|---|---|---|
| 9 cu. yd. | 1,077 | 4,471 | 842 | 5.31 | 4.15 |
| | (1,055) | (4,467) | (780) | (5.73) | (4.23) |
| 10 cu. yd. | 1,049 | 3,929 | 771 | 5.09 | 3.74 |
| | (1,027) | (3,638) | (789) | (4.61) | (3.54) |

### Dry Refuse Collection.

Dry refuse is collected once weekly and consists of household and shop refuse, a charge of 3d. per bin being made for the latter service. An attempt is made to limit the collection of refuse to five days per week, but it has not always been possible to do this, due principally to the vehicles working to full capacity. Limiting the collection to five days has several advantages, chief of which are, that it allows Saturday morning to be devoted to thoroughly cleaning and overhauling the vehicles ; permitting refuse collectors to work on the refuse tip; providing a margin for bringing up arrears of work which might occur, and also, I think that if Saturday morning collection is avoided it is appreciated by householders. As pointed out in previous reports, the fact that your area is almost wholly town-planned with twelve houses to the acre causes the cost of collection to be higher than it otherwise would be in a compact district. This point should be borne in mind when considering appendix 1.

## Dry Refuse Disposal.

All dry refuse is still disposed of by controlled tipping in an old claypit on the Cowpen Lane Estate which has been in use for this purpose approximately 16 years. Unfortunately, this tip, which is very central, will not last more than approximately two years, and the cost of disposal will then probably rise as longer hauls will be necessary.

## Collection and Disposal of Night Soil.

There has been a reduction in the amount of night soil collected, due to the demolition of 92 houses at Old Port Clarence under a slum clearance order. It was stated in last year's report that the collection of night soil from these properties was undertaken by the owners, but they evidently realised that this matter was the Council's obligation, and accordingly this work had to be taken over by us. The cost of this service, up to the demolition of the property, was £150 0s. 0d. which included £100 granted to the owners for work carried out from the time the property was included in the Urban District until the work was taken over by us. The privy middens at Wolviston have not yet been abolished, and these are emptied once weekly under contract for £52 per annum, the night soil being disposed of on farm land.

## Number and Type of Receptacles.

| | |
|---|---|
| Dust Bins ... ... ... | 5,645 |
| Privies ... ... ... ... | 154 |
| Ashpits ... ... ... ... | 16 |

## Cost.

A detailed account of the expenditure incurred on the cleansing services has been kept and is given in Appendix 1 in the form suggested by the Ministry.

There is an increase in cost compared with the previous year due to 1d. per hour increase in wages; adoption of a superannuation scheme, and the £150 previously mentioned under "Collection and Disposal of Night Soil." These items amount to approximately £374.

The cost per house for the service is 11/4d. or 2.6d. per week. The usual tables from the Ministry of Health's report from 1936-37 are given in appendices 2, 3 and 4, which include the corresponding figures for your district. Particular attention should be given to appendix 2 and the large discrepancy noted between districts where the refuse is estimated or weighed. A high tonnage will, of course, give a corresponding low unit cost which can be very misleading.

# APPENDIX 1—HOUSE AND TRADE REFUSE.

## Table showing Costs for Year ended 31st March, 1939.

|  |  | COLLECTION |  | DISPOSAL |  | TOTALS |  |
|---|---|---|---|---|---|---|---|
| (1) | (2) | Including depreciation or loan charges (3) | Excluding depreciation or loan charges (4) | Including depreciation or loan charges (5) | Excluding depreciation or loan charges (6) | Including depreciation or loan charges (7) | Excluding depreciation or loan charges (8) |
|  | **Revenue A/c.** | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| A. | Gross Expenditure ... | 2,760 4 2<br>(2,383 5 6) | 2,572 18 0<br>(2,194 15 11) | 347 16 10<br>(478 0 2) | 277 19 4<br>(410 15 2) | 3,108 1 0<br>(2,861 5 8) | 2,850 17 4<br>(2,605 11 1) |
| B. | Gross Income ... ... | 50 0 3<br>(52 8 10) | 50 0 3<br>(52 8 10) |  |  | 50 0 3<br>(52 8 10) | 50 0 3<br>(52 8 10) |
| C. | Net Cost ... ... | 2,710 3 11<br>(2,330 16 8) | 2,522 17 9<br>(2,142 7 1) | 347 16 10<br>(478 0 2) | 277 19 4<br>(410 15 2) | 3,058 0 9<br>(2,808 16 10) | 2,800 17 1<br>(2,553 2 3) |
|  | **Unit Costs.** |  |  |  |  |  |  |
| D. | Gross Expenditure per ton | 10 6.6<br>(9 4) | 9 10.<br>(8 7.) | 1 4.<br>(1 10 5) | 1 0.8<br>(1 7.5) | 11 10.6<br>(11 2 5) | 10 10.8<br>(10 2.5) |
| E. | Gross Income per ton ... | 2.3<br>(2.5) | 2.3<br>(2.5) |  |  | 2.3<br>(2.5) | 2 3<br>(2.5) |
| F. | Net Cost per ton ... | 10 4.3<br>(9 1.5) | 9 7.7<br>(8 4.5) | 1 4.<br>(1 10.5) | 1 0.8<br>(1 7.5) | 11 8.3<br>(11 0.0) | 10 8.5<br>(10 0.0) |
| G. | Net Cost per 1,000 population | 113 16 3<br>(103 11 10) | 105 19 0<br>(95 4 4) | 14 12 2<br>(21 4 11) | 11 13 5<br>(18 5 1) | 128 8 5<br>(124 16 9) | 117 12 5<br>(113 9 5) |
| H. | Net Cost per 1,000 houses or or premises from which refuse is collected ... ... | 503 2 0<br>(436 4 10) | 468 6 7<br>(400 19 3) | 64 11 5<br>(89 9 3) | 51 12 0<br>(76 17 6) | 567 13 5<br>(525 14 1) | 519 18 7<br>(477 16 9) |

### Rate Poundage.

|  |  |  |  |
|---|---|---|---|
| J. | Net Cost : Equivalent Rate in £ ... | 3.84d. | (3.67d.) |
| K. | Percentage of J. to total rates in the £ | 1.9% | (2.06%) |

|  |  |  |
|---|---|---|
| (1) | Total Refuse collected (Includes 102 tons 15 cwts. of Night Soil) | 5,232 Tons. (5,098) |
| (2) | Population ... ... | 23,812. (22,506) |
| (3) | Weight per 1,000 population per day ... | 12.04 cwts. (12.4) |
| (4) | Number of houses and premises ... ... | 5,387. (5,343) |
| (5) | Rateable Value ... | £200,798 (190,745) |
| (6) | Product of a 1d. rate ... | £795 (£765) |
| (7) | Total rates in £ ... | 16/10d. (14/10d.) |

## APPENDIX II.

Average weight of refuse per 1,000 of population per day (365 days to year; number of districts shown in brackets).

| Class of Authority. | Average weight of Refuse per 1,000 of Population per day (cwts.) |
|---|---|
| Urban Districts (17) A (17) | ... ... ... 11.9 (11.7) |
| Urban Districts (101) O (97) | ... ... ... ... 20.3 (19.6) |
| Billingham U.D.C. O | ... ... ... ... 12.04 (12.4) |

A = areas in which 80 per cent., or more, of the refuse was actually weighed.
O = areas where weight was based on test weighings or wholly estimated.

## APPENDIX III.

Average yearly cost of collection and disposal of refuse: (i) per 1,000 of population: (ii) per 1,000 houses. (Number of boroughs and districts shown in brackets).

| Population | Average Yearly Cost per 1,000 of Population | | | Average Cost per 1,000 Houses | | |
|---|---|---|---|---|---|---|
| | Collection | Disposal | Collection and Disposal | Collection | Disposal | Collection and Disposal |
| Under 30,000 ... ... | £126 (96)<br>(£119) (88) | £39 (96)<br>(£39) (88) | £163 (117)<br>(£157) (106) | £482 (97)<br>(£472) (89) | £158 (97)<br>(£165) (89) | £631 (118)<br>(£625) (107) |
| Billingham U.D.C. ... | £113 16 3<br>(£103 11 10) | £14 12 2<br>(£21 4 11) | £128 8 5<br>(£124 16 9) | £503 2 0<br>(£436 5 0) | £64 11 5<br>(£89 9 3) | £567 13 5<br>(£525 14 1) |

## APPENDIX IV.

Average cost per ton of refuse collection and disposal. (Loan charges or depreciation and expenditure for new plant out of revenue included, except in the last column; income deducted. Number of boroughs and districts shown in brackets).

| Areas | Collection | Disposal | Collection and Disposal | |
|---|---|---|---|---|
| | | | | Loan charges, etc. excluded |
| | s. d. | s. d. | s. d. | s. d. |
| Under 30,000 ... A | 11 9 (14) | 5 2 (14) | 16 10 (15) | 15 10 (15) |
| | (10 9) (17) | (4 11) (17) | (15 6) (18) | (14 4) (18) |
| Various ... ... O | 8 7 (229) | 2 10 (229) | 11 2 (251) | 10 6 (251) |
| | (8 5) (219) | (2 10) (219) | (11 0) (237) | (10 4) (237) |
| Billingham U.D.C. ... O | 10 4.3 | 1 4 | 11 8.3 | 10 8.5 |
| | (9 1.5) | (1 10.5) | (11 0) | (10 0) |

A = areas in which 80 per cent., or more, of the refuse was actually weighed.

O = areas where weight was based on test weighings or wholly estimated.